

# **Bilge Pump Monitor with Flow Detection**

## **Abstract**

Defined here is an apparatus that automatically determines the operating condition of a sump or bilge pump system. An electronic circuit combines a signal from a flow sensor at the output of the pump and a signal from the pump actuator. It indicates normal pump parameters as well as alert conditions. Normal pump parameters are; a visual indication whether the pump is on or off and a visual indication of whether water is flowing out of the sump pump system. Alert indications are; a visual and/or audible alarm indication that the pump is on but no water exiting from the system. This is an error condition that should be remedied by the operator. Optionally the apparatus can alert the operator in case the pump is working for too long of a time period indicating an excessive leak.